APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,653	07/30/2001	Stephen R. Palm	1875.0080001	8494

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EXAMINER
MUNOZ, GUILLERMO

ART UNIT	PAPER NUMBER
2637	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2000*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-56* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 July 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   Paper No(s)/Mail Date. _____ .
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)   5) ☐ Notice of Informal Patent Application (PTO-152)
    Paper No(s)/Mail Date _____ .   6) ☐ Other: _____ .

DETAILED ACTION

Drawings

Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 10, 12, 15, 23, 25, 28, 36, 38, 41, 49, 51, and 54 are objected to because of the following informalities:

Claim 10 recites the limitation "is DPSK" in line 1. It is suggested the phrase "is DPSK" be changed to — is Differential Phase-Shift-Keyed —.

Regarding claim 12, see claim 10.

Regarding claim 15, see claim 10.

Regarding claim 23, see claim 10.

Regarding claim 25, see claim 10.

Regarding claim 28, see claim 10.

Regarding claim 36, see claim 10.

Regarding claim 38, see claim 10.

Regarding claim 41, see claim 10.

Regarding claim 49, see claim 10.

Regarding claim 51, see claim 10.

Regarding claim 54, see claim 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-17, 19-30, 32-43, and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "xDSL" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "xDSL" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 32 recites the limitation "xDSL" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 45 recites the limitation "xDSL" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claims 7-17 are dependent on rejected claim 6; claims 20-30 are dependent on rejected claim 19; claims 33-43 are dependent on rejected claim 32; and claims 46-56 are dependent on rejected claim 45 and are rejected under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 1-8, 11, 13, 14, 16-21, 24, 26, 27, 29-34, 37, 39, 40, 42-47, 50, 52, 53, 55, and 56

are rejected under 35 U.S.C. 103(a) as being unpatentable over Olafsson et al. in view of

Applicant Admitted Prior Art (AAPA).

Regarding claim 1; Olafsson et al. teach Method and Apparatus For Fast V.90 Modem

Startup, which teach almost all the claimed subject matter "a central modem...modified

capability indicator...one or more remote modems" in claim 1 as follows. Olafsson et al.

illustrate the modem network topology in Fig. 1, which include a central modem and at least one

remote modems, note elements 104 and 102. Olafsson et al. teach that in a capabilities exchange

protocol, a capabilities request signal may function to inform the remote modem that the central

modem is capable of operating in certain mode, note paragraph 0049. Olafsson et al. further

teach that the central modem communicates this ability by modifying various characteristics of

the capabilities signal in such a way that legacy modem systems will recognize the capabilities

signal as a standard capabilities signal, note paragraphs 0049 and 0050. Olafsson et al. teach the

remote modem responds to the modified capabilities signal by transmitting an acknowledgement

signal to the central modem, note paragraph 0050. Olafsson et al. do not explicitly state using

the modified capabilities tone for xDSL spectrum legacy compatibility, however, Olafsson et al.

teach that the invention is ideal for any number of legacy modem systems and in any number of

data communication contexts, note paragraphs 0020 and 0017.

AAPA disclose existing xDSL technologies performed handshaking for selecting which

xDSL technology will be used and for selecting related transmission parameters, note instant

application, note page 8, lines 14-19 of instant application.

Therefore, it would have been obvious to one having ordinary skill in the art to modify

Olafsson et al.'s amplitude capability indicator with AAPA's teaching of selecting an xDSL

technology and related transmission parameters, since Olafsson et al. suggest in paragraph 0008

that the newer modem technologies require system compatibility with legacy modems still in

use.

Regarding claim 2, AAPA disclose the claimed subject matter in figure 2., note G.992.2

upstream spectrum.

Regarding claim 3, Olafsson et al. further teach the claimed subject matter, note

paragraph 0049.

Regarding claim 4, Olafsson et al. discloses substantially the claimed invention as set

forth in the discussion above for claim 3, see paragraph 0049. Olafsson et al. do not disclose

expressly "capability indicator is modulated for 16 milliseconds at 1.2 times nominal power

followed by 16 milliseconds of 0.75 times nominal power".

At the time of the invention, it would have been obvious to a person of ordinary skill in

the art to modulate the capability indicator signal for 16 milliseconds at 1.2 times nominal power

followed by 16 milliseconds of 0.75 times nominal power.

Applicant has not disclose that modulating for 16 milliseconds at 1.2 times nominal power followed by 16 milliseconds of 0.75 times nominal power provides an advantage, is used for a particular purpose or solves a stated problem.

One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the amplitude modulation taught by Olafsson et al. or the claimed 16 milliseconds at 1.2 times nominal power followed by 16 milliseconds of 0.75 times nominal power because both amplitude modulations perform the same function of communicating central modem capabilities in a legacy modem systems to remote modems.

Therefore, it would have been obvious to one of ordinary skill in the art to characterize Olafsson et al.'s amplitude modulation as 16 milliseconds at 1.2 times nominal power followed by 16 milliseconds of 0.75 times nominal power to obtain the invention as specified in claim 4.

Regarding claim 5, see claim 1.

Regarding claim 6, see claim 2.

Regarding claim 7, AAPA disclose the claimed subject matter in figure 2, note G.992.2 downstream spectrum.

Regarding claim 8, see claim 2.

Regarding claim 11; Olafsson in view of AAPA do not explicitly teach an initial upstream carrier freq in the frequency band of 3750 kHZ – 5100 kHZ, however, transmitting a signal in such a frequency does not involve any inventive step.

Given that, it would have been obvious to one of ordinary skill in the art to modify Olafsson in view of AAPA so as to use a carrier frequency in the band of 3750 kHZ – 5100 kHZ so as to be able to initiate upstream transmission at a higher frequency signal.

Regarding claim 13, AAPA disclose the claimed subject matter in figure 2, note G.992.1

ANNEX B upstream spectrum.

Regarding claim 14, see claim 13.

Regarding claim 16, see claim 3.

Regarding claim 17, see claim 4.

Regarding claim 18, see claim 1.

Regarding claim 19, see claim 2.

Regarding claim 20, see claim 7.

Regarding claim 21, see claim 2.

Regarding claim 24, see claim 11.

Regarding claim 26, see claim 13.

Regarding claim 27, see claim 13.

Regarding claim 29, see claim 3.

Regarding claim 30, see claim 4.

Regarding claim 31, see claim 1.

Regarding claim 32, see claim 2.

Regarding claim 33, see claim 7.

Regarding claim 34, see claim 2.

Regarding claim 37, see claim 11.

Regarding claim 39, see claim 13.

Regarding claim 40, see claim 13.

Regarding claim 42, see claim 3.

Regarding claim 43, see claim 4.

Regarding claim 44, see claim 1.

Regarding claim 45, see claim 2.

Regarding claim 46, see claim 7.

Regarding claim 47, see claim 2.

Regarding claim 50, see claim 11.

Regarding claim 52, see claim 13.

Regarding claim 53, see claim 13.

Regarding claim 55, see claim 3.

Regarding claim 56, see claim 4.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Guillermo Munoz whose telephone number is 571-272-3045.

The examiner can normally be reached on Monday-Friday 8:30a.m-4:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GM
November 10, 2004

JEAN B. CORRIELUS
PRIMARY EXAMINER
11-15-04